

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/594,449  
Source: IFWP  
Date Processed by STIC: 10/06/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 10/06/2006

PATENT APPLICATION: US/10/594,449

TIME: 10:51:10

Input Set : A:\060734.txt

Output Set: N:\CRF4\10062006\J594449.raw

```

2 <110> APPLICANT: Zeon Corp.
W--> 3 <120> TITLE OF INVENTION: Recombinant Herpes Virus and Use Thereof
W--> 4 <130> FILE REFERENCE: P852
C--> 5 <140> CURRENT APPLICATION NUMBER: US/10/594,449
C--> 5 <141> CURRENT FILING DATE: 2006-09-26
W--> 5 <160> NUMBER OF SEQ ID: 27
6 <170> SOFTWARE: PatentIn version 3.2
W--> 7 <210> SEQ ID NO: 1
8 <211> LENGTH: 469
9 <212> TYPE: PRT
10 <213> ORGANISM: Artificial
W--> 11 <220> FEATURE:
12 <223> OTHER INFORMATION: Infecitous laryngotracheitis virus and artificial ORF
W--> 13 <400> SEQUENCE: 1
14 Met Ala Ser Leu Lys Met Leu Ile Cys Val Cys Val Ala Ile Leu Ile
15 1 5 10 15
16 Pro Ser Thr Leu Ser Gln Asp Ser His Gly Ile Ala Gly Ile Ile Asp
17 20 25 30
18 Pro Arg Asp Thr Ala Ser Met Asp Val Gly Lys Ile Ser Phe Ser Glu
19 35 40 45
20 Ala Ile Gly Ser Gly Ala Pro Lys Glu Pro Gln Ile Arg Asn Arg Ile
21 50 55 60
22 Phe Ala Cys Ser Ser Pro Thr Gly Ala Ser Val Ala Arg Leu Ala Gln
23 65 70 75 80
24 Pro Arg His Cys His Arg His Ala Asp Ser Thr Asn Met Thr Glu Gly
25 85 90 95
26 Ile Ala Val Val Phe Lys Gln Asn Ile Ala Pro Tyr Val Phe Asn Val
27 100 105 110
28 Thr Leu Tyr Tyr Lys His Ile Thr Thr Val Thr Thr Trp Ala Leu Phe
29 115 120 125
30 Ser Arg Pro Gln Ile Thr Asn Glu Tyr Val Thr Arg Val Pro Ile Asp
31 130 135 140
32 Tyr His Glu Ile Val Arg Ile Asp Arg Ser Gly Glu Cys Ser Ser Lys
33 145 150 155 160
34 Ala Thr Tyr His Lys Asn Phe Met Phe Phe Glu Ala Tyr Asp Asn Asp
35 165 170 175
36 Glu Arg Glu Lys Lys Leu Pro Leu Val Pro Ser Leu Leu Arg Ser Thr
37 180 185 190
38 Val Ser Lys Ala Phe His Thr Thr Asn Phe Thr Lys Arg His Gln Thr
39 195 200 205
40 Leu Gly Tyr Arg Thr Ser Thr Ser Val Asp Cys Val Val Glu Tyr Leu
41 210 215 220
42 Gln Ala Arg Ser Val Tyr Pro Tyr Asp Tyr Phe Gly Met Ala Thr Gly

```

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```

43 225          230          235          240
44 Asp Thr Val Glu Ile Ser Pro Phe Tyr Thr Lys Asn Thr Thr Gly Pro
45          245          250          255
46 Arg Arg His Ser Val Tyr Arg Asp Tyr Arg Phe Leu Glu Ile Ala Asn
47          260          265          270
48 Tyr Gln Val Arg Asp Leu Glu Thr Gly Gln Ile Arg Pro Pro Lys Lys
49          275          280          285
50 Arg Asn Phe Leu Thr Asp Glu Gln Phe Thr Ile Gly Trp Asp Ala Met
51          290          295          300
52 Glu Glu Lys Glu Ser Val Cys Thr Leu Ser Lys Trp Ile Glu Val Pro
53 305          310          315          320
54 Glu Ala Val Arg Val Ser Tyr Lys Asn Ser Tyr His Phe Ser Leu Lys
55          325          330          335
56 Asp Met Thr Met Thr Phe Ser Ser Gly Lys Gln Pro Phe Asn Ile Ser
57          340          345          350
58 Arg Leu His Leu Ala Glu Cys Val Pro Thr Ile Ala Ser Glu Ala Ile
59          355          360          365
60 Asp Gly Ile Phe Ala Arg Lys Tyr Ser Ser Thr His Val Arg Ser Gly
61          370          375          380
62 Asp Ile Glu Tyr Tyr Leu Gly Ser Gly Gly Phe Leu Ile Ala Phe Gln
63 385          390          395          400
64 Lys Leu Met Ser His Gly Leu Ala Glu Met Tyr Leu Glu Glu Ala Gln
65          405          410          415
66 Arg Gln Asn His Leu Pro Arg Gly Arg Glu Arg Arg Gln Gly Asp Leu
67          420          425          430
68 Tyr Lys Cys Gly Met Ala Asp Tyr Asp His Glu Gln Thr Val Arg Thr
69          435          440          445
70 Glu Gly Pro Glu Met Ser Leu Gly Thr Val Asn Arg Pro Ile Arg Pro
71          450          455          460
72 Ile Tyr Ser Ser His
73 465

```

74 &lt;210&gt; SEQ ID NO: 2

75 &lt;211&gt; LENGTH: 429

76 &lt;212&gt; TYPE: PRT

77 &lt;213&gt; ORGANISM: Infectious laryngotracheitis virus

W--&gt; 78 &lt;400&gt; SEQUENCE: 2

```

79 Met Ala Ser Leu Lys Met Leu Ile Cys Val Cys Val Ala Ile Leu Ile
80 1          5          10          15
81 Pro Ser Thr Leu Ser Gln Asp Ser His Gly Ile Ala Gly Ile Ile Asp
82          20          25          30
83 Pro Arg Asp Thr Ala Ser Met Asp Val Gly Lys Ile Ser Phe Ser Glu
84          35          40          45
85 Ala Ile Gly Ser Gly Ala Pro Lys Glu Pro Gln Ile Arg Asn Arg Ile
86          50          55          60
87 Phe Ala Cys Ser Ser Pro Thr Gly Ala Ser Val Ala Arg Leu Ala Gln
88 65          70          75          80
89 Pro Arg His Cys His Arg His Ala Asp Ser Thr Asn Met Thr Glu Gly
90          85          90          95
91 Ile Ala Val Val Phe Lys Gln Asn Ile Ala Pro Tyr Val Phe Asn Val

```

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```

92          100          105          110
93 Thr Leu Tyr Tyr Lys His Ile Thr Thr Val Thr Thr Trp Ala Leu Phe
94          115          120          125
95 Ser Arg Pro Gln Ile Thr Asn Glu Tyr Val Thr Arg Val Pro Ile Asp
96          130          135          140
97 Tyr His Glu Ile Val Arg Ile Asp Arg Ser Gly Glu Cys Ser Ser Lys
98 145          150          155          160
99 Ala Thr Tyr His Lys Asn Phe Met Phe Phe Glu Ala Tyr Asp Asn Asp
100          165          170          175
101 Glu Arg Glu Lys Lys Leu Pro Leu Val Pro Ser Leu Leu Arg Ser Thr
102          180          185          190
103 Val Ser Lys Ala Phe His Thr Thr Asn Phe Thr Lys Arg His Gln Thr
104          195          200          205
105 Leu Gly Tyr Arg Thr Ser Thr Ser Val Asp Cys Val Val Glu Tyr Leu
106          210          215          220
107 Gln Ala Arg Ser Val Tyr Pro Tyr Asp Tyr Phe Gly Met Ala Thr Gly
108 225          230          235          240
109 Asp Thr Val Glu Ile Ser Pro Phe Tyr Thr Lys Asn Thr Thr Gly Pro
110          245          250          255
111 Arg Arg His Ser Val Tyr Arg Asp Tyr Arg Phe Leu Glu Ile Ala Asn
112          260          265          270
113 Tyr Gln Val Arg Asp Leu Glu Thr Gly Gln Ile Arg Pro Pro Lys Lys
114          275          280          285
115 Arg Asn Phe Leu Thr Asp Glu Gln Phe Thr Ile Gly Trp Asp Ala Met
116          290          295          300
117 Glu Glu Lys Glu Ser Val Cys Thr Leu Ser Lys Trp Ile Glu Val Pro
118 305          310          315          320
119 Glu Ala Val Arg Val Ser Tyr Lys Asn Ser Tyr His Phe Ser Leu Lys
120          325          330          335
121 Asp Met Thr Met Thr Phe Ser Ser Gly Lys Gln Pro Phe Asn Ile Ser
122          340          345          350
123 Arg Leu His Leu Ala Glu Cys Val Pro Thr Ile Ala Ser Glu Ala Ile
124          355          360          365
125 Asp Gly Ile Phe Ala Arg Lys Tyr Ser Ser Thr His Val Arg Ser Gly
126          370          375          380
127 Asp Ile Glu Tyr Tyr Leu Gly Ser Gly Gly Phe Leu Ile Ala Phe Gln
128 385          390          395          400
129 Lys Leu Met Ser His Gly Leu Ala Glu Met Tyr Leu Glu Glu Ala Gln
130          405          410          415
131 Arg Gln Asn His Leu Pro Arg Gly Arg Glu Arg Arg Gln
132          420          425

```

133 &lt;210&gt; SEQ ID NO: 3

134 &lt;211&gt; LENGTH: 1287

135 &lt;212&gt; TYPE: DNA

136 &lt;213&gt; ORGANISM: Infectious laryngotracheitis virus

W--&gt; 137 &lt;400&gt; SEQUENCE: 3

```

138 atggctagct tgaaaatgct gatctgcgtg tgcgtggcaa tcttgatccc atctacccta      60
139 tctcaagatt cacacggaat tgccggaata atagaccctc gtgatacagc cagcatggat      120
140 gttggaaaaa tctctttctc cgaagccatt gggctcggggg caccgaaaga accccagatt      180

```

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```

141 agaaacagaa tttttgcgtg ctcatctcca actggcgcca gtgttgcgag gcttgcccag 240
142 ccacgacatt gtcaccgaca tgccgattcg actaacatga ctgaaggaat tgccgtagtc 300
143 ttcaagcaaa acattgcccc gtacgtcttt aatgtgactc tatactataa acatataacc 360
144 acagttacta cgtgggcatt attctcaaga ccccaaataa caaatgagta cgtgaccagg 420
145 gttccaatag actatcatga aattgtcagg attgatcgat cgggagaatg ctcatccaaa 480
146 gcaacgtatc ataaaaatth catgtttttt gaagcttacg acaatgatga acgagaaaaa 540
147 aaattgcccc tggttccatc actgttaaga tcaactgtct ccaaggcggt tcatacaact 600
148 aactttacta agcgacatca aaccctggga taccgaacgt ctacatcggt cgactgtggt 660
149 gtggaatata tacaggctag atctgtatac ccgtatgatt actttggaat ggcgacagg 720
150 gatacagtag aaatttctcc cttttatacc aaaaacacga ccggaccaag gcgtcacagt 780
151 gtctacagag actatagatt tctcgaaatc gcaaattatc aagtcaggga tttggaaacc 840
152 ggacaaataa gacccctaa aaaaagaaac tttctaacag atgaacaatt cactataggc 900
153 tgggatgcaa tggagaaaaa ggaatctgta tgtactctca gtaaattgat tgaagtcccg 960
154 gaagcagttc gtgtttcgta caaaaacagt taccactttt cacttaaaga tatgactatg 1020
155 acgttctcgt ccggaaaaca accttttaac atcagcaggc ttcatttggc tgaatgcgtt 1080
156 cctaccatag cttcggaggc catagatggc atctttgcca gaaagtatag ttcgactcat 1140
157 gtccgttctg gggacatcga atactatctc ggtagtggcg gatttctgat cgcatttcag 1200
158 aaactcatga gccatggctt ggctgaaatg tacctagaag aggcacaaag acaaaatcat 1260
159 ctcccagagag ggagagagcg tcgcca 1287

```

160 &lt;210&gt; SEQ ID NO: 4

161 &lt;211&gt; LENGTH: 40

162 &lt;212&gt; TYPE: PRT

163 &lt;213&gt; ORGANISM: Artificial

W--&gt; 164 &lt;220&gt; FEATURE:

165 &lt;223&gt; OTHER INFORMATION: SV40 pA signal

W--&gt; 166 &lt;400&gt; SEQUENCE: 4

167 Gly Asp Leu Tyr Lys Cys Gly Met Ala Asp Tyr Asp His Glu Gln Thr

168 1 5 10 15

169 Val Arg Thr Glu Gly Pro Glu Met Ser Leu Gly Thr Val Asn Arg Pro

170 20 25 30

171 Ile Arg Pro Ile Tyr Ser Ser His

172 35 40

173 &lt;210&gt; SEQ ID NO: 5

174 &lt;211&gt; LENGTH: 120

175 &lt;212&gt; TYPE: DNA

176 &lt;213&gt; ORGANISM: Artificial

W--&gt; 177 &lt;220&gt; FEATURE:

178 &lt;223&gt; OTHER INFORMATION: SV40 pA signal

W--&gt; 179 &lt;400&gt; SEQUENCE: 5

180 ggcgacctct acaaatgtgg tatggctgat tatgatcatg aacagactgt gaggactgag 60

181 gggcctgaaa tgagccttgg gactgtgaat cggccaataa ggcctattta ctcatcgcat 120

182 &lt;210&gt; SEQ ID NO: 6

183 &lt;211&gt; LENGTH: 18

184 &lt;212&gt; TYPE: DNA

185 &lt;213&gt; ORGANISM: Artificial

W--&gt; 186 &lt;220&gt; FEATURE:

187 &lt;223&gt; OTHER INFORMATION: Synthetic

W--&gt; 188 &lt;400&gt; SEQUENCE: 6

189 tgtaaaacga cggccagt 18

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DATE: 10/06/2006

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TIME: 10:51:10

Input Set : A:\060734.txt

Output Set: N:\CRF4\10062006\J594449.raw

```

190 <210> SEQ ID NO: 7
191 <211> LENGTH: 29
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial
W--> 194 <220> FEATURE:
195 <223> OTHER INFORMATION: Synthetic
W--> 196 <400> SEQUENCE: 7
197 ttcggtaccg gttattatta ttttttgac 29
198 <210> SEQ ID NO: 8
199 <211> LENGTH: 30
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial
W--> 202 <220> FEATURE:
203 <223> OTHER INFORMATION: Synthetic
W--> 204 <400> SEQUENCE: 8
205 gggctgcaga gttattaata gtaatcaatt 30
206 <210> SEQ ID NO: 9
207 <211> LENGTH: 27
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial
W--> 210 <220> FEATURE:
211 <223> OTHER INFORMATION: Synthetic
W--> 212 <400> SEQUENCE: 9
213 gcactcggat ccattgacat ggctagc 27
214 <210> SEQ ID NO: 10
215 <211> LENGTH: 30
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial
W--> 218 <220> FEATURE:
219 <223> OTHER INFORMATION: Synthetic
W--> 220 <400> SEQUENCE: 10
221 agatgccatc tatggcctcc gaagctatgg 30
222 <210> SEQ ID NO: 11
223 <211> LENGTH: 30
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial
W--> 226 <220> FEATURE:
227 <223> OTHER INFORMATION: Synthetic
W--> 228 <400> SEQUENCE: 11
229 tggtggaatg cgttcctacc atagcttcgg 30
230 <210> SEQ ID NO: 12
231 <211> LENGTH: 29
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial
W--> 234 <220> FEATURE:
235 <223> OTHER INFORMATION: Synthetic
W--> 236 <400> SEQUENCE: 12
237 cgggtacctt attcgtcttc gctttcttc 29
238 <210> SEQ ID NO: 13

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RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 10/06/2006  
PATENT APPLICATION:    US/10/594,449      TIME: 10:51:11

Input Set : A:\060734.txt  
Output Set: N:\CRF4\10062006\J594449.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,23,24,25,26,27

## VERIFICATION SUMMARY

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Input Set : A:\060734.txt

Output Set: N:\CRF4\10062006\J594449.raw

L:3 M:283 W: Missing Blank Line separator, <120> field identifier  
L:4 M:283 W: Missing Blank Line separator, <130> field identifier  
L:5 M:270 C: Current Application Number differs, Replaced Current Application No  
L:5 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:5 M:283 W: Missing Blank Line separator, <160> field identifier  
L:7 M:283 W: Missing Blank Line separator, <210> field identifier  
L:11 M:283 W: Missing Blank Line separator, <220> field identifier  
L:13 M:283 W: Missing Blank Line separator, <400> field identifier  
L:78 M:283 W: Missing Blank Line separator, <400> field identifier  
L:137 M:283 W: Missing Blank Line separator, <400> field identifier  
L:164 M:283 W: Missing Blank Line separator, <220> field identifier  
L:166 M:283 W: Missing Blank Line separator, <400> field identifier  
L:177 M:283 W: Missing Blank Line separator, <220> field identifier  
L:179 M:283 W: Missing Blank Line separator, <400> field identifier  
L:186 M:283 W: Missing Blank Line separator, <220> field identifier  
L:188 M:283 W: Missing Blank Line separator, <400> field identifier  
L:194 M:283 W: Missing Blank Line separator, <220> field identifier  
L:196 M:283 W: Missing Blank Line separator, <400> field identifier  
L:202 M:283 W: Missing Blank Line separator, <220> field identifier  
L:204 M:283 W: Missing Blank Line separator, <400> field identifier  
L:210 M:283 W: Missing Blank Line separator, <220> field identifier  
L:212 M:283 W: Missing Blank Line separator, <400> field identifier  
L:218 M:283 W: Missing Blank Line separator, <220> field identifier  
L:220 M:283 W: Missing Blank Line separator, <400> field identifier  
L:226 M:283 W: Missing Blank Line separator, <220> field identifier  
L:228 M:283 W: Missing Blank Line separator, <400> field identifier  
L:234 M:283 W: Missing Blank Line separator, <220> field identifier  
L:236 M:283 W: Missing Blank Line separator, <400> field identifier  
L:242 M:283 W: Missing Blank Line separator, <220> field identifier  
L:244 M:283 W: Missing Blank Line separator, <400> field identifier  
L:250 M:283 W: Missing Blank Line separator, <220> field identifier  
L:252 M:283 W: Missing Blank Line separator, <400> field identifier  
L:258 M:283 W: Missing Blank Line separator, <220> field identifier  
L:260 M:283 W: Missing Blank Line separator, <400> field identifier  
L:266 M:283 W: Missing Blank Line separator, <220> field identifier  
L:268 M:283 W: Missing Blank Line separator, <400> field identifier  
L:274 M:283 W: Missing Blank Line separator, <220> field identifier  
L:276 M:283 W: Missing Blank Line separator, <400> field identifier  
L:282 M:283 W: Missing Blank Line separator, <220> field identifier  
L:284 M:283 W: Missing Blank Line separator, <400> field identifier  
L:290 M:283 W: Missing Blank Line separator, <220> field identifier  
L:292 M:283 W: Missing Blank Line separator, <400> field identifier  
L:298 M:283 W: Missing Blank Line separator, <220> field identifier  
L:300 M:283 W: Missing Blank Line separator, <400> field identifier  
L:306 M:283 W: Missing Blank Line separator, <220> field identifier  
L:308 M:283 W: Missing Blank Line separator, <400> field identifier  
L:314 M:283 W: Missing Blank Line separator, <400> field identifier  
L:343 M:283 W: Missing Blank Line separator, <220> field identifier



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DATE: 10/06/2006

TIME: 10:51:11

Input Set : A:\060734.txt

Output Set: N:\CRF4\10062006\J594449.raw

L:345 M:283 W: Missing Blank Line separator, <400> field identifier  
L:351 M:283 W: Missing Blank Line separator, <220> field identifier  
L:353 M:283 W: Missing Blank Line separator, <400> field identifier  
L:359 M:283 W: Missing Blank Line separator, <220> field identifier